UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/522,332	03/09/2000	Tal Lavian	10360-052001	3280

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EXAMINER
BOUTAH, ALINA A

ART UNIT	PAPER NUMBER
2143	

DATE MAILED: 01/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/522,332	LAVIAN ET AL.
	Examiner	Art Unit	
	Alina N Boutah	2143	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-32</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-32</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>09 March 2000</u> is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Drawings

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they

do not include the following reference sign(s) mentioned in the description: 221 on page 6, line

12, page 8, line 22, page 9, lines 24-25, and page 10, lines 1, 3, 30, and 31. A proposed drawing

correction or corrected drawings are required in reply to the Office action to avoid abandonment

of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on
> sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 8-15, 20-26, 31 and 32 are rejected under 35 U.S.C. 102(b) as being

anticipated by USPN 5,655,081 issued to Bonnell et al.

Regarding claim 1, Bonnell et al. teach a system for managing network resources

comprising:

a network device operatively connected to the network having a processor capable of

downloading a task over the network, executing the task, and providing the results from the task

(Abstract; col. 6, lines 61-67 – col. 7, lines 1-14); and

a network management server that requests that the network device execute a task related

to the management of resources associated with the network and receives the results from the

task for use in management of the network (Abstract; col. 6, lines 61-67 – col. 7, lines 1-14).

Regarding claim 2, the system in claim 1 wherein the task includes operations compatible

with a network management protocol (col. 5, lines 60-67 – col. 6, lines 1-14).

Regarding claim 3, Bonnell et al. teach the system in claim 2 wherein the network

management protocol includes the simple network management protocol (SNMP) (col. 5, lines

60-67 – col. 6, lines 1-14).

Regarding claim 8, Bonnell et al. teach the system in claim 1 wherein the processor on

the network device executes a task that analyzes the use of network resources on one or more

network devices connected to the network (col. 6, lines 61-67 – col. 7, lines 1-14).

Regarding claim 9, Bonnell et al. teach the system in claim 1 further comprising an

application server device connected to the network and used to store tasks downloadable onto the

network device (Abstract; figure 19, col. 8, lines 47-49).

Regarding claim 10, Bonnell et al. teach the system in claim 1 wherein the task monitors

a network parameter associated with the network and notifies the network management server

when the network parameter reaches a threshold level (col. 13, lines 55-62; col. 17, lines 18-20).

Regarding claim 11, Bonnell et al. teach a computer-implemented method of distributing

management of network resource on a network to network devices exchanging information over

the network, comprising:

receiving a request on a network device to execute a task that performs a set of operations

related to managing the network (Abstract; col. 6, lines 61-67 – col. 7, lines 1-14);

receiving an application over the network wherein the application includes operations for

performing the task (Abstract; col. 6, lines 61-67 – col. 7, lines 1-14);

processing operations on the network device that requests network parameters from a

remote network device (col. 7, lines 14-21; col. 9, lines 61-67 – col. 10, lines 1-10);

transmitting the request for the network parameter over the network to the remote

network (col. 7, lines 14-31); and

receiving the requested network parameter over the network from the remote network

device (col. 7, lines 14-21).

Regarding claim 12, Bonnell et al. teach the method in claim 11, further comprising:

processing operations on the network device using the network parameter (col. 7, lines

14-21; col. 9, lines 61-67 – col. 10, lines 1-10); and

providing results from the processing of the task in response to the request to execute the

task (col. 7, lines 7-14; col. 8, lines 63-67).

Regarding claim 13, Bonnell et al. teach the method in claim 12 wherein providing results further comprises notifying a network management server when the network parameter reaches a threshold level (col. 13, lines 55-62; col. 17, lines 18-20).

Regarding claim 14, Bonnell et al. teach the method in claim 11 wherein the task includes operations compatible with a network management protocol (col. 5, lines 60-67 – col. 6, lines 1-14).

Regarding claim 15, Bonnell et al. teach the method in claim 14 wherein the network management protocol includes the simple network management protocol (SNMP) (col. 5, lines 60-67 – col. 6, lines 1-14).

Regarding claim 20, Bonnell et al. teach the method in claim 11, wherein the processor . on the network device executes a task that analyzes the utilization of network resources on one or more network devices connected to the network (col. 6, lines 61-67 – col. 7, lines 1-14).

Regarding claim 21, Bonnell et al. teach the method in claim 11, further comprising an application server device connected to the network used to store tasks and download them onto the network device (Abstract; figure 19, col. 8, lines 47-49).

Regarding claim 22, Bonnell et al. teach an apparatus for distributing network management of a network-to-network devices comprising:

a memory containing instructions when executed cause the processor to receive a request

on a network device to execute a task that performs a set of operations related to managing the

network, receive an application over the network wherein the application has instructions for

performing the task, process operations on the network device that requests network parameters

from a remote network device, transmit the request for the network parameter over the network

to the remote network, and receive the requested network parameter over the network from the

remote network device (Abstract; col. 6, lines 61-67 – col. 7, lines 1-14; col. 6, lines 61-67 – col.

7, lines 1-31; col. 9, lines 61-67 – col. 10, lines 1-10);

and although Bonnell et al. do not expressly teach a processor, some kind of processor

must inherently be part of a network device in order to perform the mentioned task.

Regarding claim 23, Bonnell et al. teach the apparatus of claim 22 wherein the memory

contains additional instructions for execution on the processor that continue processing

operations on the network device using the network parameter (col. 7, lines 14-21; col. 9, lines

61-67 – col. 10, lines 1-10); and provide results from the processing of the task in response to the

request to execute the task (col. 7, lines 7-14; col. 8, lines 63-67).

Regarding claim 24, Bonnell et al. teach the apparatus of claim 22 wherein the memory

contains additional instructions for execution on the processor and providing results that further

notify the network management server when the network parameter reaches a threshold level

(col. 13, lines 55-62; col. 17, lines 18-20).

Regarding claim 25, Bonnell et al. teach the apparatus of claim 22 wherein the processor

executes instructions compatible with a network management protocol (col. 5, lines 60-67 – col.

6, lines 1-14).

Regarding claim 26, Bonnell et al. teach the apparatus of claim 25 wherein the network

management protocol includes the simple network management protocol (SNMP) (col. 5, lines

60-67 – col. 6, lines 1-14).

Regarding 31, Bonnell et al. teach an apparatus for distributing network management of a

network to network devices exchanging information over the network comprising:

means for receiving a request on a network device to execute a task that performs a set of

operations related to managing the network (Abstract; col. 6, lines 61-67 – col. 7, lines 1-14);

means for receiving an application over the network wherein the application includes

operations for performing the task (Abstract; col. 6, lines 61-67 – col. 7, lines 1-14);

means for processing operations on the network device that requests network

parameters from a remote network device (col. 7, lines 14-21; col. 9, lines 61-67 – col. 10, lines

1-10);

means for transmitting the request for the network parameter over the network to the

remote network (col. 7, lines 14-31); and

means for receiving the requested network parameter from the remote network device

over the network (col. 7, lines 14-21).

Regarding claim 32, Bonnell et al. teach a computer program product, for distributing network management of a network to network devices exchanging information over the network, the product comprising program code instructions to cause a processor to:

receive a request on a network device to execute a task that performs a set of operations related to managing the network (Abstract; col. 6, lines 61-67 – col. 7, lines 1-14);

receive an application over the network wherein the application includes operations for performing the task (Abstract; col. 6, lines 61-67 – col. 7, lines 1-14);

process operations on the network device that requests network parameters from a remote network device (col. 7, lines 14-21; col. 9, lines 61-67 – col. 10, lines 1-10);

transmit the request for the network parameter over the network to the remote network (col. 7, lines 14-31);

and receive from the remote network device the requested network parameter over the network (col. 7, lines 14-21).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 4-7, 16-19, and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bonnell et al. in view of *Infrastructure for Advanced Network Management based on Mobile Code* by Susilo et al.

Regarding claims 4, 16, and 27, Bonnell et al. fail to teach the system (in claim 1), the method (in claim 11), and the apparatus of (claim 22), respectively, wherein the task includes operations compatible with an object-oriented programming language. Susilo et al. teach a use of mobile agents performing tasks for network management wherein the task includes operations compatible with an object-oriented programming language (Abstract; Requirements 1 and 2, page 324, 3rd paragraph, and page 325, 1st paragraph; Security, the entire page 328). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to enable the task to include operations compatible with an object-oriented programming language because it provides security and portability that are necessary for secure task distribution (Abstract; Security, the entire page 328; Summary, page 332, 1st paragraph).

Regarding claims 5, 17, and 28, Bonnell et al. fail to teach the system (in claim 1), the method (in claim 11), and the apparatus of (claim 22), respectively, wherein the tasks includes operations compatible with byte-codes executable on a virtual machine. Susilo et al. teach a use of mobile agents to perform tasks for network management wherein the task include operations compatible with byte-code executable on a virtual machine (Requirement 1, page 324, 3rd paragraph; Requirements 2, page 325, 1st paragraph; entire page 326). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to enable the task to

include operations compatible with byte-code executable on a virtual machine to allow the

implementation of applications that run on many different platforms, thus enhancing the

system's robustness (Requirement 1, page 324, 3rd paragraph).

Regarding claims 6, 18, and 29, Bonnell et al. fail to teach the system (in claim 5), the

method (in claim 19), and the apparatus of (claim 28), respectively, wherein the virtual machine

is compatible with the Java Virtual Machine. Susilo et al. teach the virtual machine being

compatible with Java Virtual Machine (Requirement 1, page 324, 3rd paragraph; Requirements 2,

page 325, 1st paragraph; entire page 326). At the time the invention was made, it would have

been obvious to one of ordinary skill in the art to employ a virtual machine that is compatible

with Java Virtual machine because it allows the implementation of applications that run on many

different platforms, thus enhancing the system's robustness (Requirement 1, page 324, 3rd

paragraph).

Regarding claims 7, 19, and 30, Bonnell et al. fail to teach the system (in claim 1), the

method (in claim 11), and the apparatus of (claim 22), respectively, wherein the task includes

operations compatible with the Java object-oriented programming language. Susilo et al. teach a

use of mobile agents performing task for network management wherein the task includes

operations compatible with the Java object-oriented programming language (Abstract;

Requirements 1 and 2, page 324, 3rd paragraph, and page 325, 1st paragraph; Security, the entire

page 328). At the time the invention was made, it would have been obvious to one of ordinary

skill in the art to enable the task to include operations compatible with Java object-oriented

programming language because Java provides security and portability that are necessary for

secure task distribution (Abstract; Security, the entire page 328; Summary, page 332, 1st

paragraph).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

1. United States Patent No. 6,122,664 issued to Boukobza et al.

2. United States Patent No.6,182,157 issued to Schlener et al.

3. United States Patent No.6,112,225 issued to Kraft et al.

4. United States Patent No.6,085,240 issued to Suzuki et al.

5. United States Patent No.6,434,594 issued to Wesemann, Darren

6. Covaci et al. "Java-Based Intelligent Mobile Agents for Open System Management."

   IEEE. 1997. Pages 492-501.

7. Liotta et al. "Modelling Network and System Monitoring Over the Internet With

   Mobile Agents." IEEE. 1998. Pages 303-312.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Alina N Boutah whose telephone number is (703) 305-5104. The

examiner can normally be reached on Monday-Friday (8:30 am-5:30 pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, David A Wiley can be reached on (703) 308-5221. The fax phone numbers for the

organization where this application or proceeding is assigned are (703) 746-9112 for regular

communications and (703) 305-3718 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is (703) 305-3900.

ANB

ANB
January 23, 2003

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